Foster Chamberlain, LLC
new business development

Corporate Venturing
Implications for Alternative Energies Ventures

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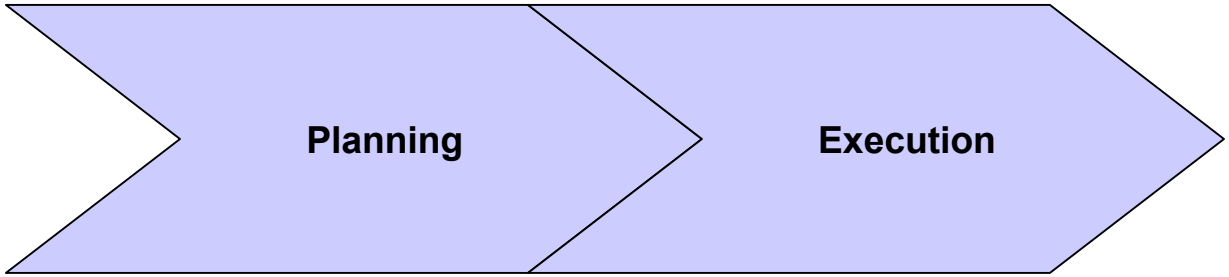
Agenda

- Overview of Foster Chamberlain LLC
- Overview of corporate venturing
- How selected venturing mechanics interact
- One important takeaway for alternative energy ventures

Foster Chamberlain LLC specializes in helping its clients to create value through corporate venturing



- Opportunity assessment
  - IP mining & screening
  - Feasibility analysis
  - Market sizing
  - Business plans
  - Market research
  - Pricing analysis
  - M&A analysis
  - Spin-out analysis
- Strategic planning
  - Commercialization
  - Growth
- Structuring
  - Organizational design
  - Ownership
- Milestone planning

- Milestone management
  - Business development
  - Operations
  - Capital-raising
  - Product development
  - Prototyping & piloting
  - Recruiting
- Transaction management
  - Negotiations
  - Due diligence
  - Deal structuring

Foster Chamberlain's clients are predominantly Fortune 1000 companies across a wide range of industries

Industries	Example Clients
Aerospace, Defense & Communications	BOEING, LOCKHEED MARTIN (We never forget who we're working for™), NEXTEL, ALIEN™
Energy & Utilities	Exelon, conectiv, nicor, NiSource
Chemicals & Pharmaceuticals	DUPONT, AVERY DENNISON, SOLUTIA, Bristol-Myers Squibb Company
Automotive	DANA, JOHNSON CONTROLS, DELPHI (Driving Tomorrow's Technology)
Manufacturing	INTERNATIONAL PAPER, Armstrong, ALCOA
Consumer Products & Electronics	BLACK & DECKER, Kodak, Sunbeam, OKI®
Media, Information & Financial Services	KNIGHT RIDDER, D&B, PBS, THE Vanguard GROUP

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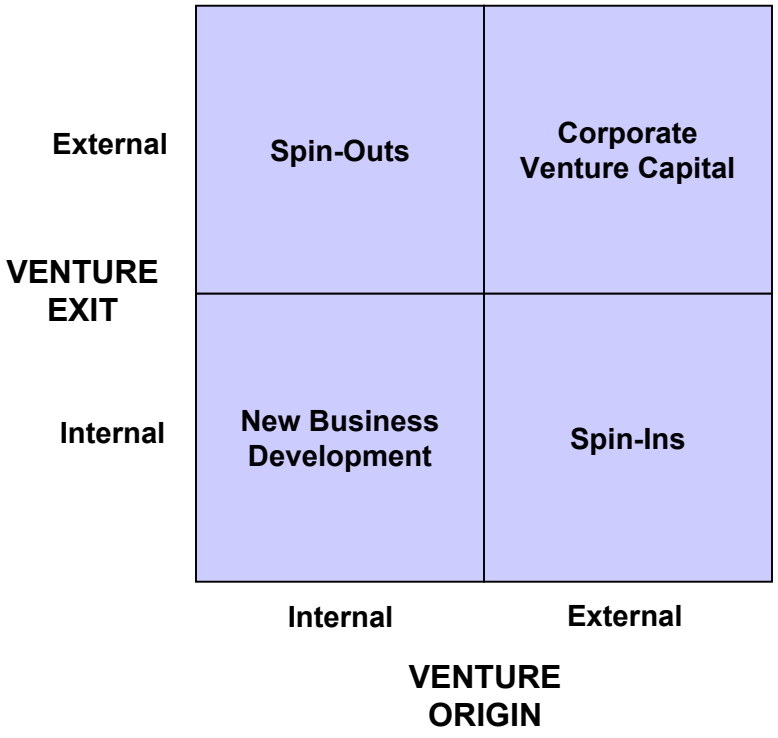
Broadly defined, corporate venturing encompasses four key strategies

CORPORATE VENTURING ACTIVITY MATRIX



The rationale for corporate venturing is that it enables large companies to overcome traditional challenges & capture small-company advantages

Traditional business development challenges

- **NEAR-TERM P&L PRESSURE:** Venturing insulates fledgling businesses from parent-company P&L pressure, making them less vulnerable to cost-cutting initiatives
- **DISTRACTION FROM CORE BUSINESS:** Venturing enables senior management to maintain focus on the core business without neglecting growth opportunities
- **CAREER DEVELOPMENT RISK:** Venturing mitigates the career risk that prevents qualified employees from championing new ventures

Small-company advantages

- **SPEED:** Approval processes are highly streamlined in new ventures, enabling rapid decision-making
- **"BOOT-STRAPPING" DISCIPLINE:** New ventures maintain ultra-lean, cost-conscious organizations and focus budget expenditures exclusively on milestone achievement
- **AUTONOMY:** New ventures operate with their own interests in mind, without the encumbrances of parent company interests
- **INCENTIVES:** New ventures attract and retain top entrepreneurial talent by offering significant financial rewards to employees for success

The objective of corporate venturing is value creation, and companies select appropriate strategies based on their specific situations

Spin-out Example (Aerospace Co.)

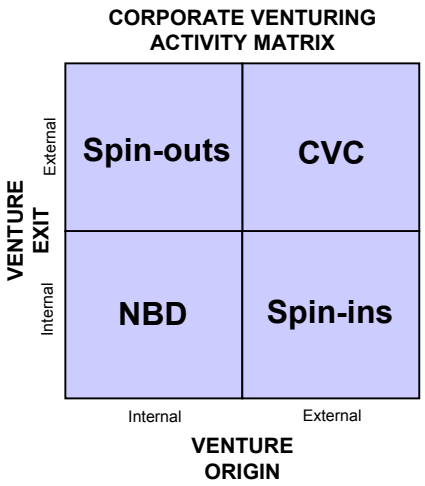
An aerospace company has developed an alternative energy technology for its own use. However, the technology has significant value to other companies within aerospace and potential value in a number of other industries.

The aerospace company chooses to create an independent venture that will aggressively pursue this new line of business

CVC Example (Electronics Co.)

An electronics company has an interest in the development of alternative energy technologies to extend the use of its devices. The company wishes to increase the probability that viable solutions will be developed that could ultimately result in market growth for its core product lines.

The company chooses to seed several fledgling businesses.



NBD Example (Adv. Materials Co.)

An advanced materials company has identified a promising alternative energy opportunity. The technology faces significant technical challenges which the company believes it could solve using its know-how.

The company chooses to invest in technology development and seek partnerships with companies that could help it to focus its efforts and get products to market in the near-term

Spin-in Example (Energy Co.)

An energy company identifies a promising alternative energy technology start-up. The company believes that it could use its know-how, infrastructure, and market reach to improve and promote the technology.

The energy company chooses to acquire the business and combine it with another small acquisition and some internally developed technologies to create a new (complementary) line of business.

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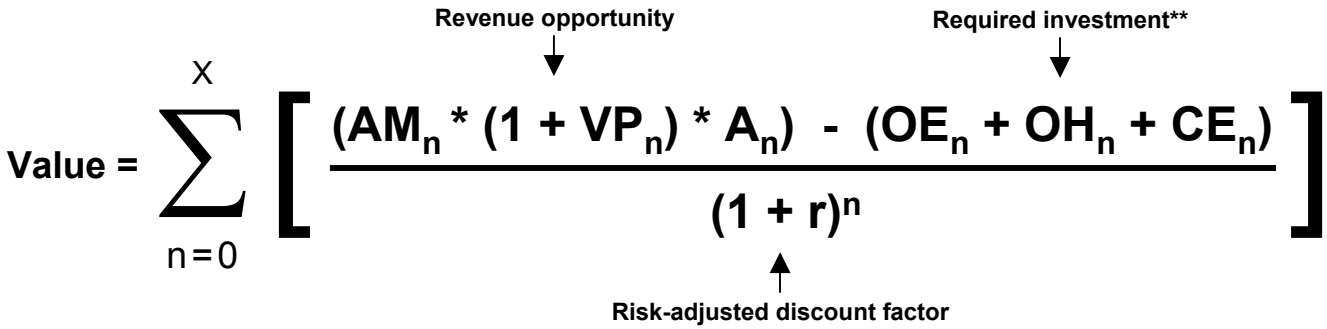
A venture's value can be computed by estimating its future cash flows and applying a risk-adjusted discount factor

Example Valuation Formula



Key

AM	Addressable market
VP	Value proposition
A	Adoption
OE	Operating expenses
OH	Overhead expenses
CE	Capital expenditures
r	Discount rate

Note: *n* is a unit of time; the number of years in the forecast horizon will vary by opportunity; the formula is based on pre-tax dollars; no terminal value is assumed by the formula

* The appropriate valuation formula is a function of its type of value proposition and business model; however, all formulas use the same component terms

** In a new (pre-revenue) venture, overhead and operating expenses effectively represent investments in that they are real cash outlays made without reasonable certainty of offsetting revenue

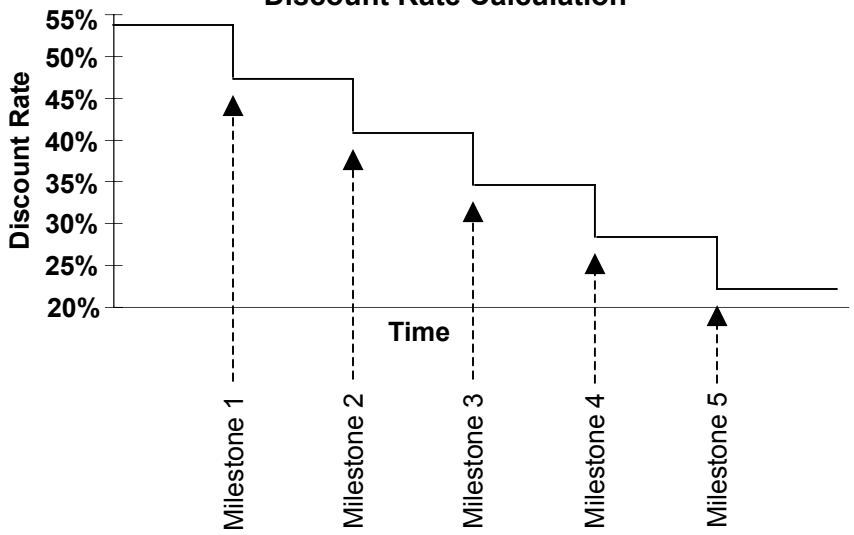
The discount rate (r) is generally determined based on the risk-reducing milestones that the business has achieved

Example Valuation Formula

Revenue opportunity — Required investment

$$\text{Value} = \sum_{n=0}^{X} \left[\frac{(AM_n * (1 + VP_{n)} * A_n) - (OE_n + OH_n + CE_n)}{(1 + r)^n} \right]$$

Risk-adjusted discount factor

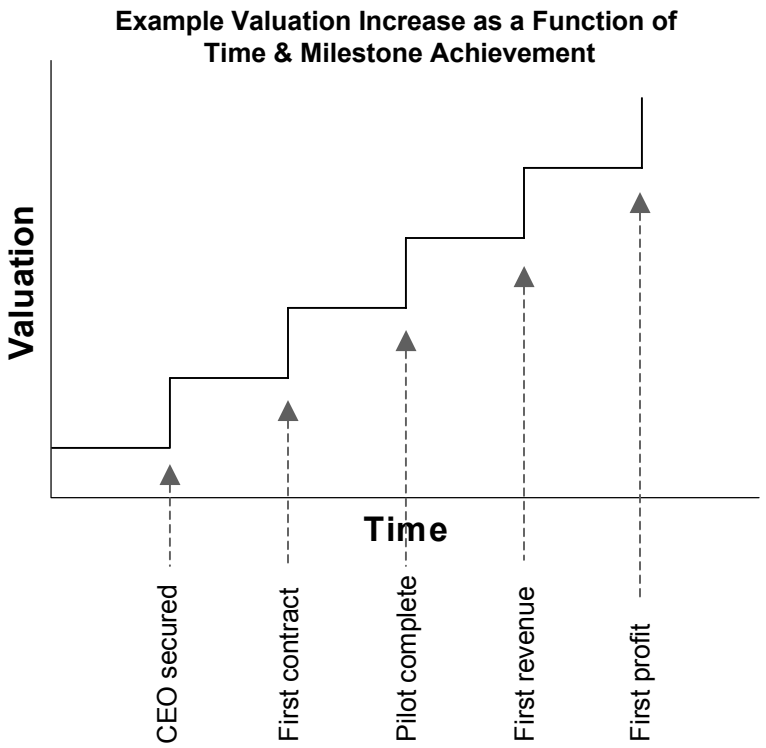
Definition	Example
Discount Rate. The rate used to convert future cash flows back to current dollars, which is determined by the risk associated with those cash flows (risk is defined as a function of a venture's proximity to various risk-reducing milestones, including technical validation, customer validation, operational validation and management team validation)	**Discount Rate Calculation** 

Milestones are selected based on risk reduction (and therefore value-creation) and are the primary focus of the activities of a new venture

Milestones are tangible operating achievements that fall into four principal areas…

Area	Example milestones
Customer validation	• Customer contract • Price point validation • Revenue generation • Positive cash flow
Technical validation	• Patent application filing • Proof-of-concept completion • Prototype or pilot completion
Skill validation	• Key executive recruitment • Key technical staff recruitment
Operational validation	• Production system operational • Supply chain logistics tested

…And which significantly impact a venture's valuation



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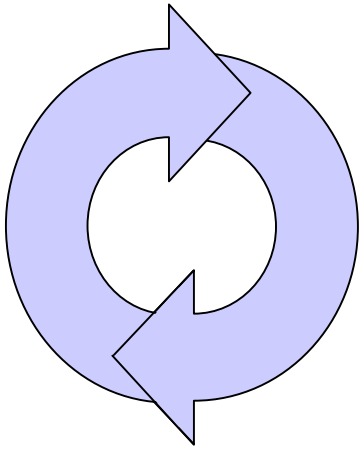
Many alternative energy technologies face a common challenge that has resulted in a number of businesses with (as yet) unrealized potential…

- Alternative energies have advantages over incumbents, but costs are prohibitively high for many applications

- Customers will adopt the new technologies when costs come down



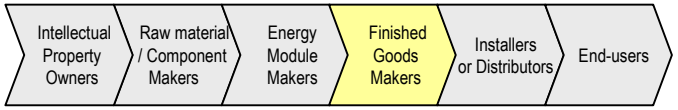
- Cost reductions depend on economies of scale which can only be realized if broad technology adoption occurs

- Costs will come down when the customers adopt new technologies

…and has made customer validation an important milestone for alternative energy ventures

Thus, one of the most important things that I.P. owners in this space can do is to spend more time building relationships with market makers

IP owners should first target relationships with market-makers for customer validation



CUSTOMER VALIDATION

Target market makers (specifiers or manufacturers of finished goods) in order to identify more sustainable business opportunities

- Assist finished goods makers in assessing market opportunity (market potential at different price points and performance specifications)
- Determine target specifications
- Secure development partnership in which partner provides:
  - Prototype specifications
  - Testing support and feedback
  - Co-development resources
  - Pilot plant
  - Funding (contingent on milestones)
  - Manufacturing
  - Purchase orders

And then focus additional development efforts accordingly

TECHNICAL VALIDATION

- Prototype meeting finished goods makers specifications

OPERATIONAL VALIDATION

- Pilot plant and plans for scale-up and cost reductions

SKILL VALIDATION

- Commercialization partnerships that provide market reach, manufacturing capabilities, etc.